What is claimed is:

1. A communications method for use in an orthogonal frequency division multiplexed system, the method comprising:

modulating first control information on a single tone to generate a first control signal; and

transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

2. The method of claim 1, wherein said first control information is transmission power control information corresponding to a first wireless terminal.

3. The method of claim 1, wherein said first control information is transmission frequency control information corresponding to a first wireless terminal.

4. The method of claim 1, wherein said first control information is transmission timing control information corresponding to a first wireless terminal.

5. The method of claim 2, wherein said first control signal includes an In-phase component and a Quadrature component, said first control information being modulated on a first single one of said In-phase and Quadrature components.

6. The method of claim 5, further comprising modulating second control information corresponding to a second wireless terminal on said single tone, on a second single one of said In-phase and Quadrature components, said second single one of said In-phase and Quadrature components being different from said first single one of said In-phase and Quadrature components.

7. The method of claim 5, further comprising operating said first wireless terminal to receive said first control signal and adjusting a transmission power level as a function of the first control information modulated on said first control signal.

8. The method of claim 5, wherein the second single one of said In-phase and Quadrature phase components is transmitted with no more than 10% of the power that is used to transmit said first single one of said In-phase and Quadrature components.

9. The method of claim 8, wherein the power transmitted on the second signal one of said In-phase and Quadrature components is zero.

10. The method of claim 5, wherein said modulating step includes performing an amplitude modulation operation to modulate said first control information on said first single one of said In-phase and Quadrature components, said modulation for single one of said In-phase and Quadrature components including assigning, as a function of said first control information, a single value from a set of at least 3 possible values.

11. The method of claim 10, wherein at least one of the 3 possible values is zero indicating no change in transmission power is to be made by said first wireless terminal.

12. The method of claim 10, wherein said set of possible values includes a predetermined interval of possible values.

13. The method of claim 11, wherein said control information is a single value which can be any one of at least three values, one of said at least 3 values being zero indicating no change in transmission power is to be made by said first wireless terminal, said step of modulating control information including mapping said single value to one of at least three signal amplitude levels, a zero control value being mapped to a zero amplitude value of the amplitude modulated signal.

14. The method of claim 5,
wherein said modulating includes performing amplitude modulation.

15. The method of claim 14, further comprising:
multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information so far received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds.

16. The method of claim 15, further comprising:

increasing said first scaling factor in response to receiving downlink quality information indicative of a decrease in downlink channel quality and decreasing said first scaling factor in response to receiving downlink quality information indicative of a increase in downlink channel quality.

17. The method of claim 14, further comprising:

operating the wireless terminal to receive the scaled amplitude modulated signal; and

operating the wireless terminal to multiply the received signal by a second scaling factor that is a function of the downlink quality information previously sent by said wireless terminal.

18. The method of claim 17, increasing the second scaling factor in response to an increase in downlink channel quality and decreasing the second scaling factor in response to an decrease in downlink channel quality

19. The method of claim 2, further comprising:

periodically transmitting a first set of said modulated power control signals corresponding to a first wireless terminal, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods.

20. The method of claim 19, wherein the tones used to modulate said first set of modulated power control signals is determined by a first predetermined hopping sequence.

21. The method of claim 20, wherein the first predetermined hopping sequence corresponds to a terminal identifier associated with the first wireless terminal.

22. The method of claim 20, wherein said first wireless terminal uses a second predetermined hopping sequence to select tones for data communication purposes, the periodicity of the second predetermined hopping sequence being shorter than the periodicity of the first predetermined hopping sequence.

23. The method of claim 22, wherein the periodicity of the second predetermined hopping sequence is at most half of the periodicity of the first predetermined hopping sequence.

24. The method of claim 8, wherein one of the In-phase and Quadrature signal components are not used, the method further comprising:

operating the wireless terminal to ignore the received power control information when the unused one of the In-phase and Quadrature components includes power above a preselected threshold.

25. The method of claim 5, further comprising:

transmitting a plurality of power control signals to said first wireless terminal over a period of time; and

transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components of at least 50% less frequently than the power control signals transmitted to said first wireless terminal.

26. The method of claim 25, wherein said single orthogonal frequency division multiplexed symbol transmission time period during which said periodic device identifier is transmitted is a function of a wireless device identifier unique to said first wireless terminal.

27. The method of claim 26, wherein the value of the periodic device identifier at any given time is a function of a wireless device identifier unique to said first wireless terminal.

28. The method of claim 5,

wherein one of the possible modulated signal values corresponds to a control command indicating no change in power; and

wherein transmitting said first control information includes transmitting said signal tone with zero power when said first control information indicates no change in power.

29. The method of claim 5, wherein said power control signal is transmitted in a first sector corresponding to a base station, the method comprising:

operating the base station to control a second sector adjacent to said first base station to leave the tone used by said first power control signal unused in said second sector when said first control signal is transmitted.

30. A communications apparatus for use in an orthogonal frequency division multiplexed communications system including a wireless terminal, the apparatus comprising:

a modulator for modulating first control information on a single tone to generate a first control signal; and

a transmitter coupled to said modulator for transmitting said first control signal using said single tone during a single orthogonal frequency division multiplexed symbol transmission time period.

31. The communications apparatus of claim 30, wherein said first control information is one of transmission power control information, transmission frequency control information, and transmission timing control information corresponding to said wireless terminal.

32. The communications apparatus of claim 31,

wherein said first control signal includes an In-phase component and a Quadrature component; and

wherein said modulator is an amplitude modulator for amplitude modulating first control information on a first single one of said In-phase and Quadrature components.

33. The communications apparatus of claim 32, wherein said modulator further modulates second control information corresponding to a second wireless terminal on said single tone, on a second single one of said In-phase and Quadrature components, said second single one of said In-phase and Quadrature components being different from said first single one of said In-phase and Quadrature components.

34. The communications apparatus of claim 32, wherein the power transmitted on the second single one of said In-phase and Quadrature components is zero.

35. The communications apparatus of claim 32, wherein said modulator includes

means for mapping said first control information to a single value from a set of at least 3 possible values which may be amplitude modulated on said first one of said In-phase and Quadrature phase signal components; and

wherein at least one of the 3 possible values is zero indicating no change in transmission power is to be made by said wireless terminal.

36. The communications apparatus of claim 32, further comprising:

a scaling device for multiplying the amplitude modulated one of the In-phase and Quadrature components by a first scaling factor, said first scaling factor being a function of downlink quality report information so far received from the wireless terminal to which the modulated one of the In-phase and Quadrature components corresponds.

37. The communications apparatus of claim 36, further comprising:

means for increasing said first scaling factor in response to receiving downlink quality information indicative of a decrease in downlink channel quality and decreasing said first scaling factor in response to receiving downlink quality information indicative of a increase in downlink channel quality.

38. The communications apparatus of claim 32, further comprising:

means for allocating tones used to transmit power control signals according to a first predetermined frequency hopping pattern said tones assigned according to the first frequency hopping pattern including a first set of modulated power control signals, at least some of said first set of modulated power control signals being modulated on different tones during different orthogonal frequency division multiplexed symbol transmission time periods.

39. The communications apparatus of claim 38, wherein the first predetermined hopping sequence corresponds to a terminal identifier associated with the wireless terminal.

40. The communications apparatus of claim 38, wherein tones are allocated for transmitting data to said wireless terminal according to a second predetermined hopping sequence, the periodicity of the second predetermined hopping sequence being shorter than the periodicity of the first predetermined hopping sequence.

41. The communications apparatus of claim 32, wherein said transmitter transmits a plurality of power control signals to said first wireless terminal over a period of time; and

includes means for transmitting a periodic device identifier signal on the second single one of the In-phase and Quadrature signal components on less than 50% of the power control signals transmitted to said wireless terminal.

42. The communications apparatus of claim 11, wherein said single orthogonal frequency division multiplexed symbol transmission time period during which said periodic device identifier is transmitted is a function of a wireless device identifier unique to said wireless terminal.

43. The communications apparatus of claim 41, wherein the value of the periodic device identifier at any given time is a function of a wireless device identifier unique to said first wireless terminal.

44. The communications apparatus of claim 32,

wherein one of the possible modulated signal values corresponds to a control command indicating no change in power; and

wherein transmitting said first control information includes transmitting said signal tone with zero power when said first control information indicates no change in power.

45. The communications apparatus of claim 32, wherein said apparatus is a sectorized base station and wherein said transmitter is a transmitter in a sector of the sectorized base station, said apparatus including:

a control module for controlling a second sector adjacent to said first base station to leave the tone used by said first power control signal unused in said second sector when said first control signal is transmitted.

46. A method of operating a wireless terminal in an orthogonal frequency division multiplexed communications system, the method comprising:

periodically receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, amplitude modulated on a first single one of an In-phase component and a

Quadrature phase component of a single tone during a single orthogonal frequency division multiplexed symbol transmission time period; and

determining from the magnitude of said first single one of said In-phase and Quadrature phase signal components of each received control signal an amount of an adjustment to be made, said adjustment corresponding to the control information type.

47. The method of claim 46, wherein said first type of information is one of power control information, timing control information and frequency control information.

48. The method of claim 46, wherein said first type of control information is power control information, the method comprising:

operating the wireless terminal to perform a transmission power adjustment operation in response to the determined magnitude of at least one of said first single one of said In-phase and Quadrature phase signal components.

49. The method of claim 47, wherein a determined magnitude of approximately zero for said first single one of said In-phase and Quadrature phase signal components indicates no transmission power adjustment is to be made.

50. The method of claim 47, further comprising:

checking a signal transmitted on the second single one of the In-phase and Quadrature phase components to determine if said single orthogonal frequency division multiplexed symbol transmission time period during which said signal is transmitted and the value of said signal are a function of a wireless device identifier unique to said wireless terminal.

51. The method of claim 50, further comprising:

disregarding the received power control information when said checking indicates said signal on the second one of the In-phase and Quadrature components is not for said wireless terminal.

52. The method of claim 47, further comprising:

ignoring a received control signal when the power of the second one of the In-phase and Quadrature phase components of said signal is above a preselected threshold.

53. The method of claim 52, wherein said threshold is a power level threshold corresponding to a preselected level of signal noise.

54. A wireless terminal for use in an orthogonal frequency division multiplexed communications system, the method comprising:

a receiver for receiving control signals corresponding to said wireless terminal, each control signal having control information of a first type, corresponding to one of at least three different values, amplitude modulated on a first single one of an In-phase component and a Quadrature phase component of a single tone during a single orthogonal frequency division multiplexed symbol transmission time period; and

means for determining from the magnitude of said first single one of said In-phase and Quadrature phase signal components of each received control signal an amount of an adjustment to be made, said adjustment corresponding to the control information type.

55. The wireless terminal of claim 54, wherein said first type of information is one of power control information, timing control information and frequency control information.

56. The wireless terminal of claim 55, wherein said first type of control information is timing control information, the wireless terminal comprising:

means for performing a transmission power adjustment operation in response to the determined magnitude of at least one of said first single one of said In-phase and Quadrature phase signal components.

57. The wireless terminal of claim 56, wherein a determined magnitude of approximately zero for said first single one of said In-phase and Quadrature phase signal components indicates no transmission power adjustment is to be made.

58. The wireless terminal of claim 55, further comprising:

checking a signal transmitted on the second single one of the In-phase and Quadrature phase components to determine if said single orthogonal frequency division multiplexed symbol transmission time period during which said signal is transmitted and the value of said signal are a function of a wireless device identifier unique to said wireless terminal.

59. The wireless terminal 58, further comprising:

disregarding the received power control information when said checking indicates said signal on the second one of the In-phase and Quadrature components is not for said wireless terminal.

60. The wireless terminal of claim 55 wherein the control signal is a power control signal, said wireless terminal further comprising:

means for disregarding a received power control signal when the power of the second one of the In-phase and Quadrature phase components of said signal is above a preselected threshold.